103D CONGRESS 1ST SESSION

S. 419

To provide for enhanced cooperation between the Federal Government and the United States commercial aircraft industry in aeronautical technology research, development, and commercialization, and for other purposes.

IN THE SENATE OF THE UNITED STATES

FEBRUARY 24 (legislative day, JANUARY 5), 1993

Mr. Danforth (for himself, Mr. Rockefeller, Mr. Gorton, Mr. Lieberman, Mr. Baucus, Mr. Bond, Mr. Dodd, Mrs. Murray, and Mr. Riegle) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

A BILL

- To provide for enhanced cooperation between the Federal Government and the United States commercial aircraft industry in aeronautical technology research, development, and commercialization, and for other purposes.
 - 1 Be it enacted by the Senate and House of Representa-
 - 2 tives of the United States of America in Congress assembled,
 - 3 **SECTION 1. SHORT TITLE.**
 - 4 This Act may be cited as the "Aeronautical Tech-
 - 5 nology Consortium Act of 1993".
 - 6 SEC. 2. FINDINGS AND PURPOSES.
 - 7 (a) FINDINGS.—The Congress finds that—

- (1) a strong commercial aircraft industry is critical to the health of the United States economy: aircraft production in the United States affects nearly 80 percent of the economy, and for every additional dollar of shipments of aircraft, output of the economy increases by an estimated \$2.30;
 - (2) a strong commercial aircraft industry is critical to the national security of the United States because of the synergies between commercial and military aeronautical technologies and the need for a strong advanced technology industrial base;
 - (3) the National Critical Technologies Panel has identified aeronautics as one of twenty-two categories of technologies critical to the national economic prosperity and to national security;
 - (4) while the United States has traditionally dominated the world commercial aircraft market, the United States aircraft industry is facing two critical challenges: significant cutbacks in defense procurement and related military spending, and the growing competitive strength of the European aircraft consortium, Airbus Industrie;
 - (5) Airbus Industrie, a consortium of four European aircraft manufacturing companies that have received almost \$26,000,000,000 in government sub-

- sidies over two decades, has developed a family of competitive aircraft models and has captured onefourth of the world market for large civil aircraft;
 - (6) in 1992, the United States signed an agreement with the European Community that permits the European governments to continue to subsidize up to 33 per centum of the development costs of new large civil aircraft;
 - (7) given current and expected reductions in defense spending and increased competitive pressures in the commercial aircraft market, it is critical for the Federal Government to coordinate its aeronautics and related programs and redirect these resources to assist the United States commercial aircraft industry to meet the competitive challenge from Airbus Industrie;
 - (8) the Federal Government has played an active role in research and development of aeronautical technologies since the National Advisory Committee on Aeronautics (NACA) was created in 1915;
 - (9) in recent years, however, Federal Government support for aerospace research and development has focused overwhelmingly on military and space technologies;

- 1 (10) Federal programs relating to aeronautics 2 research and development today are spread among a 3 number of different agencies and departments, in-4 cluding the Departments of Defense, Transpor-5 tation, and Commerce, as well as the National Aero-6 nautics and Space Administration and the National 7 Science Foundation;
 - (11) Federal financial assistance to the semiconductor industry consortium known as Sematech has been successful in improving the competitiveness of the United States semiconductor industry;
 - (12) the Federal Government should use Sematech as a model in developing a program to provide financial assistance to an industry-led consortium of United States commercial aircraft manufacturing companies; and
 - (13) such a government-industry consortium should focus its efforts on research, development, and commercialization of new aeronautical technologies and related manufacturing technologies, as well as the transfer and conversion of aeronautical technologies developed for national security purposes to commercial applications for large civil aircraft.

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1	(b) Purpose.—The purpose of this Act is to
2	strengthen and assist the United States commercial air-
3	craft industry by—
4	(1) providing for an interagency aeronautical
5	technology program to coordinate and expand Fed-
6	eral research and development programs relating to
7	aeronautical technologies and related manufacturing
8	technologies; and
9	(2) assisting the United States commercial air-
10	craft industry in developing an Aeronautical Tech-
11	nology Consortium for the purpose of providing Fed-
12	eral assistance to industry-led joint ventures estab-
13	lished for research, development, and commercializa-
14	tion of aeronautical technologies and related manu-
15	facturing technologies applicable to large civil air-
16	craft.
17	SEC. 3. DEFINITIONS.
18	For purposes of this Act—
19	(1) The term "Director" means the Director of
20	the Office of Science and Technology Policy.
21	(2) The term "eligible firm" means a company
22	or other business entity that, as determined by the

Secretary of Commerce—

1	(A) conducts a significant level of its re-
2	search, development, engineering, and manufac-
3	turing activities in the United States; and
4	(B) either—
5	(i) is a United States-owned company;
6	or
7	(ii) is a company incorporated in the
8	United States and has a parent company
9	which is incorporated in a country the gov-
10	ernment of which—
11	(I) affords United States-owned
12	companies opportunities, comparable
13	to those afforded any other company,
14	to participate in research and develop-
15	ment consortia to which the govern-
16	ment of that country provides funding
17	directly or provides funding indirectly
18	through international organizations or
19	agreements; and
20	(II) affords adequate and effec-
21	tive protection for the intellectual
22	property rights of United States-
23	owned companies.

- Such term includes a consortium of such companies or other business entities, as determined by the Secretary of Commerce.
 - (3) The term "Federal laboratory" has the meaning given such term in section 4(6) of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3703(6)).
 - (4) The term "joint venture" has the meaning given such term in section 28(j)(1) of the National Institute of Standards and Technology Act (15 U.S.C. 278n(j)(1)).
 - (5) The term "large civil aircraft" means all aircraft that are designed for passenger or cargo transportation and have one hundred or more passenger seats or its equivalent in cargo configuration.
 - (6) The term "manufacturing technology" means techniques and processes designed to improve manufacturing quality, productivity, and practices, including engineering design, quality assurance, concurrent engineering, continuous process production technology, energy efficiency, waste minimization, design for recyclability or parts reuse, shop floor management, inventory management, worker training, and communications with customers and suppli-

- ers, as well as manufacturing equipment and software.
- 3 (7) The term "United States-owned company"
 4 means a company or other business entity the ma5 jority ownership or control of which is by United
 6 States citizens.

7 SEC. 4. AERONAUTICAL TECHNOLOGY PROGRAM.

- 8 (a) ESTABLISHMENT.—The President shall establish
 9 an Aeronautical Technology Program (hereafter in this
 10 Act referred to as the "Program"), which shall—
- 11 (1) provide for interagency coordination of Fed-12 eral research and development programs relating to 13 aeronautical technologies and related manufacturing 14 technologies;
 - (2) provide a mechanism for private industry comment and guidance regarding the cost-effectiveness and commercial practicability of existing and proposed Federal research and development programs relating to aeronautical technologies and related manufacturing technologies;
 - (3) promote, to the maximum extent practicable, the transfer and conversion to commercial applications of aeronautical technologies developed for national security purposes;

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1	(4) coordinate and expand existing Federal re-
2	search and development programs relating to—
3	(A) subsonic aeronautics, and
4	(B) supersonic aeronautics,
5	with particular focus on government-industry cooper-
6	ative programs to develop large civil aircraft beyond
7	the financial means of any single company;
8	(5) assist the United States commercial aircraft
9	industry in developing an Aeronautical Technology
10	Consortium for the purpose of providing Federal as-
11	sistance to industry-led joint ventures established for
12	research, development, and commercialization of
13	aeronautical technologies and related manufacturing
14	technologies applicable to large civil aircraft; and
15	(6) establish other goals and priorities for Fed-
16	eral research and development programs relating to
17	aeronautical technologies and related manufacturing
18	technologies.
19	(b) National Aeronautics Strategy.—
20	(1) In GENERAL.—The President, acting
21	through the Coordinating Committee established in
22	subsection (c), shall develop a National Aeronautics
23	Strategy (hereafter in this Act referred to as the
24	"Strategy") to implement the Program. The Strat-

egy shall contain specific recommendations for a

1	five-year national effort, to be submitted to the Con-
2	gress within six months after the date of enactment
3	of this Act.
4	(2) Contents of Strategy.—The Strategy
5	shall—
6	(A) establish the specific goals and prior-
7	ities for the Program for the fiscal year in
8	which the Strategy is submitted and the suc-
9	ceeding four fiscal years;
10	(B) set forth the role of each Federal
11	agency and department in implementing the
12	Program;
13	(C) describe the levels of Federal funding
14	for each agency and specific research, develop-
15	ment, and commercialization activities required
16	to achieve such goals and priorities;
17	(D) take into account the recommenda-
18	tions of the Advisory Committee established in
19	section 6; and
20	(E) consider and use, as appropriate, re-
21	ports and studies conducted by Federal agen-
22	cies and departments, the National Research
23	Council, or other entities.
24	(3) Federal agencies and departments to
25	BE ADDRESSED.—The Strategy shall address, where

1	appropriate, the relevant programs and activities
2	of—
3	(A) the Department of Defense, particu-
4	larly the Department of the Air Force, the De-
5	partment of the Navy, and the Defense Ad-
6	vanced Research Projects Agency;
7	(B) the Department of Commerce, particu-
8	larly the National Institute of Standards and
9	Technology;
10	(C) the Department of Transportation,
11	particularly the Federal Aviation Administra-
12	tion;
13	(D) the National Aeronautics and Space
14	Administration;
15	(E) the National Science Foundation;
16	(F) the Federal laboratories; and
17	(G) such other agencies and departments
18	as the President or the Coordinating Committee
19	considers appropriate.
20	(c) Coordinating Committee.——
21	(1) AUTHORITY; COMPOSITION.—The Program
22	shall be administered by an Aeronautical Technology
23	Coordinating Committee (hereafter in this Act re-
24	ferred to as the "Coordinating Committee" com-
25	posed of the following officials:

1	(A) The Director, who shall be chair-
2	person.
3	(B) The Secretary of Defense.
4	(C) The Secretary of Commerce.
5	(D) The Secretary of Transportation.
6	(E) The Administrator of the National
7	Aeronautics and Space Administration.
8	(F) The Director of the National Science
9	Foundation.
10	(2) Functions.—The Coordinating Committee
11	shall—
12	(A) serve as the lead entity responsible for
13	implementation of the Program;
14	(B) coordinate all Federal research and de-
15	velopment programs relating to aeronautical
16	technologies and related manufacturing tech-
17	nologies;
18	(C) consult regularly with and seek rec-
19	ommendations from the Advisory Committee es-
20	tablished by section 6;
21	(D) consult with academic, State, industry,
22	and other appropriate groups conducting re-
23	search on and using aeronautical technologies;
24	and

1	(E) submit to the Congress an annual re-
2	port, along with the President's annual budget
3	request, describing the implementation of the
4	Program.
5	SEC. 5. AERONAUTICAL TECHNOLOGY CONSORTIUM.
6	(a) IN GENERAL.—Under the Program, the Coordi-
7	nating Committee shall provide assistance to an Aero-
8	nautical Technology Consortium (hereafter in this Act re-
9	ferred to as the "Consortium"), which shall consist of all
10	eligible firms that—
11	(1) are engaged in research, development, test-
12	ing, demonstration, or production of aeronautical
13	technology applicable to the production of large civil
14	aircraft;
15	(2) are selected by the Coordinating Committee,
16	through the Director, on the basis of the criteria
17	specified under subsection (d); and
18	(3) are necessary to enable the Consortium to
19	achieve its purpose as described under subsection
20	(b).
21	(b) Purpose.—The purpose of the Consortium is to
22	conduct industry-led joint ventures relating to—
23	(1) manufacturing technologies applicable to
24	the production of large civil aircraft:

1	(2) the transfer and conversion of aeronautical
2	technologies developed for national security purposes
3	to commercial applications for large civil aircraft;
4	(3) subsonic aeronautical technologies applica-
5	ble to the development and production of large civil
6	aircraft; and
7	(4) supersonic aeronautical technologies appli-
8	cable to the development and production of large
9	civil aircraft.
10	(c) Assistance To Be Provided.—In providing as-
11	sistance to the Consortium, the Coordinating Committee,
12	acting through the Director, shall—
13	(1) provide financial and other assistance to the
14	United States commercial aircraft industry in the
15	formation of the Consortium;
16	(2) support the Consortium, and such subordi-
17	nate joint ventures as the Consortium may establish,
18	by making available equipment, facilities, and per-
19	sonnel;
20	(3) aid the Consortium, and such subordinate
21	joint ventures as the Consortium may establish, by
22	means of grants, cooperative agreements, contracts,
23	and provision of organizational and technical advice;
24	(4) enter into contracts and cooperative agree-
25	ments in support of the Consortium with independ-

- ent research organizations, institutions of higher education, and agencies of State and local governments;
 - (5) involve the Federal laboratories in the Consortium, where appropriate, using among other authorities the cooperative research and development agreements provided for under section 12 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3710a); and
 - (6) carry out, in a manner consistent with this section, such other cooperative research activities with the Consortium and joint ventures as may be authorized by law or assigned to the Coordinating Committee by the President.
- 15 (d) SELECTION OF CONSORTIUM PARTICIPANTS.—
 16 The criteria for selection of industry participants in the
 17 Consortium, as referred to in subsection (a)(2), are as
 18 follows:
 - (1) The extent of present participation of the eligible firm in Federal research and development programs relating to aeronautical technologies and related manufacturing technologies.
- 23 (2) The extent of present commercial activity of 24 the eligible firm relating to the development and pro-

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1	duction of large civil aircraft, engines, advanced ma-
2	terials, avionics, and other related components.
3	(3) The extent of present commercial activity of
4	the eligible firm relating to aeronautical technologies
5	developed for national security purposes that may
6	have commercial applications for large civil aircraft.
7	(4) The technical excellence of the eligible firm.
8	(5) The extent of financial commitment of the
9	eligible firm to the Consortium.
10	(6) Such other criteria that the Director pre-
11	scribes.
12	(e) Charter; Operating Plan.—The Consortium
13	shall have—
14	(1) a charter, agreed to by all industry partici-
15	pants in the Consortium, that meets requirements
16	established by the Coordinating Committee; and
17	(2) an annual operating plan that is developed
18	in consultation with the Coordinating Committee
19	and the Advisory Committee established in section 6.
20	(f) Financial Commitment of Industry Partici-
21	PANTS.—
22	(1) IN GENERAL.—The Director shall ensure
23	that, to the maximum extent the Director deter-
24	mines to be practicable, the total amount of the
25	funds provided by the Federal Government to the

- 1 Consortium does not exceed the total amount pro-2 vided by the industry participants in the Consor-
- 3 tium.

- (2) AUTHORITY TO EXCEED 50 PER CENTUM FEDERAL FUNDING.—Nothing in this subsection shall be construed to prohibit the Federal Government from providing greater than 50 per centum of the funds for any individual joint venture, project, or program where the Director determines such funding to be consistent with the goals of the Program.
 - (3) Consideration of in-kind contributions to provide for consideration of in-kind contributions by industry participants in the Consortium and joint ventures for the purpose of determining the share of the funds that have been or are being provided by such participants.
- (g) MERIT REVIEW.—No contract or other award for a research project may be made under this section until the research project in question has been subject to a merit review, and, in the opinion of the reviewers appointed by the Director, has been shown to have scientific and technical merit.
- 24 (h) Oversight of Consortium Activities.—The 25 Coordinating Committee, acting through the Director,

- 1 shall take such actions as are necessary and appropriate
- 2 to ensure that the Consortium's activities help to achieve
- 3 the purposes of this act, including—

- 4 (1) prescribing regulations for the purpose of this section;
 - (2) establishing procedures for the use by the Coordinating Committee of funds authorized to a particular Federal agency or department that is participating in the Consortium;
 - (3) establishing procedures regarding financial reporting and auditing to ensure that contracts and other awards are used for the purposes specified in this section and are in accordance with sound accounting practices;
 - (4) monitoring how technologies developed through the Consortium are used, and reporting to the Congress on the extent of any overseas transfer of those technologies;
 - (5) assuring that the recommendations of the Advisory Committee established in section 6 are considered routinely in carrying out the responsibilities of the Coordinating Committee under this Act; and
 - (6) providing for the expeditious and timely transfer of technology developed and owned by the Consortium to the participants in the Consortium.

1	(i) Export of Aeronautical Technology.—Any
2	export of materials, equipment, and technology developed
3	by the Consortium in whole or in part with financial as-
4	sistance provided under this section shall be subject to the
5	Export Administration Act of 1979 (50 U.S.C. App. 2401
6	et seq.) and shall not be subject to the Arms Export
7	Control Act.
8	(j) Freedom of Information Act.—Section 552
9	of title 5, United States Code, shall not apply to the fol-
10	lowing information obtained by the Federal Government
11	on a confidential basis in connection with the activities of
12	any industry participant in the Consortium:
13	(1) information on the business operation of
14	any industry participant in the Consortium; and
15	(2) intellectual property, trade secrets, and
16	technical data possessed by any industry participant
17	in the Consortium.
18	(k) Intellectual Property.—
19	(1) DISCLOSURE LIMITATIONS.—Notwithstand-
20	ing any other provision of law, intellectual property,
21	trade secrets, and technical data owned and devel-
22	oped by the Consortium or any industry participant
23	in the Consortium may not be disclosed by any offi-

cer or employee of the Federal Government except in

accordance with a written agreement between the owner or developer and the Director.

> (2) TITLE TO AND LICENSING OF INVENTIONS AND PATENTS.—Title to any invention or patent arising from assistance provided under this section shall vest in a company or companies incorporated in the United States. The Federal Government may reserve a nonexclusive, nontransferable, irrevocable paid-up license, to have practiced for or on behalf of the Federal Government, in connection with any such invention or patent, but shall not, in the exercise of such license, publicly disclose proprietary information related to the license. Title to any such invention or patent shall not be transferred or passed, except to a company incorporated in the United States, until the expiration of the first patent obtained in connection with such invention. For purposes of this paragraph, the term "invention or patent" means an invention patentable under title 35, United States Code, or any patent on such an invention.

> (3) LICENSING TO COMPANIES.—Nothing in this subsection shall be construed to prohibit the licensing, to any company, of intellectual property

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1	rights arising from assistance provided under this
2	section.
3	SEC. 6. AERONAUTICAL TECHNOLOGY ADVISORY COMMIT-
4	TEE.
5	(a) ESTABLISHMENT.—There is established an Aero-
6	nautical Technology Advisory Committee (hereafter in this
7	Act referred to as the "Advisory Committee").
8	(b) Functions.—The Advisory Committee shall ad-
9	vise the Coordinating Committee and the Consortium
10	on—
11	(1) the Strategy and other appropriate goals
12	and priorities for the Program, and how best to
13	achieve those goals;
14	(2) the operating plan of the Consortium;
15	(3) the annual progress of the Program and the
16	Consortium in meeting the requirements of section
17	4(a) and, in the first five years, the Strategy;
18	(4) organizational and programmatic reforms
19	which would improve the effectiveness of Federal re-
20	search and development programs relating to aero-
21	nautical technologies and related manufacturing
22	technologies in promoting the competitiveness of the
23	United States commercial aircraft industry;
24	(5) mechanisms for private industry comment
25	and guidance regarding the cost-effectiveness and

- 1 commercial practicability of existing and proposed
- 2 Federal research and development programs relating
- 3 to aeronautical technologies and related manufactur-
- 4 ing technologies; and
- 5 (6) policies and mechanisms to promote the 6 transfer and conversion to commercial applications 7 of aeronautical technologies developed for national 8 security purposes; and
 - (7) other goals and priorities for Federal research and development programs relating to aeronautical technologies and related manufacturing technologies.
- 13 (c) Membership.—The Advisory Committee shall be 14 composed of twelve members, who shall be appointed by 15 the President from among individuals who, because of 16 their experience and accomplishments in the field of aero-17 nautics and related technological and scientific fields, are 18 exceptionally qualified to analyze and recommend policy
- 19 relating to aeronautical technology research and develop-
- 20 ment. Membership of the Advisory Committee shall be
- 21 composed of representatives of—
- 22 (1) large civil aircraft manufacturing compa-
- 23 nies;

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- 24 (2) aircraft engine manufacturing companies;
- 25 (3) advanced materials companies;

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1	(4) avionics and other systems companies;
2	(5) other subcontractor firms engaged in aero
3	nautical technology research, development, and pro
4	duction; and
5	(6) Federal laboratories, universities, and inde
6	pendent research institutes.
7	(d) TERMS OF MEMBERSHIP.—Each member of the
8	Advisory Committee shall be appointed for a term of three
9	years, except that of the members first appointed, four
10	shall be appointed for a term of one year, four shall be
11	appointed for a term of two years, and four shall be ap
12	pointed for a term of three years, as designated by the
13	President at the time of the appointment. A member of
14	the Advisory Committee may serve after the expiration of
15	the member's term until a successor has taken office.
16	(e) Chairperson.—The President shall appoint one
17	member of the Advisory Committee to serve as chair
18	person.
19	(f) QUORUM.—Seven members of the Advisory Com
20	mittee shall constitute a quorum.
21	(g) Meetings.—The Advisory Committee shall mee
22	at least quarterly at the call of the chairperson or one

25 (h) Compensation and Expenses.—

23 third of its members, and at the call of the Coordinating

Committee.

1	(1) No compensation for members.—Each
2	member of the Advisory Committee shall serve with-
3	out compensation.

- (2) TRAVEL EXPENSES AUTHORIZED.—While away from their homes or regular places of business in performance of the duties of the Advisory Committee, members of the Advisory Committee shall be allowed travel expenses in accordance with subchapter I of chapter 57 of title 5, United States Code.
- 11 (i) Federal Advisory Committee Act.—Section
- 12 14 of the Federal Advisory Committee Act (5 U.S.C.
- 13 App.) shall not apply to the Advisory Committee.
- 14 SEC. 7. AUTHORIZATION OF APPROPRIATIONS.
- There are authorized to be appropriated to the Office of Science and Technology Policy, to carry out the provisions of this Act, such sums as may be necessary for the fiscal years 1994 and 1995.

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